

ABSTRACT

Two Mach-Zehnder optical interferometer circuits 13a and 13b are accurately point-symmetrically connected to each other to form a first point-symmetrically connected optical interferometer circuit 5 constituting a light input side circuit 1. Optical signals having a plurality of wavelengths are input to a light input terminal 17. A second point-symmetrically connected optical interferometer circuit 7 having the same functional structure as the first point-symmetrically connected optical interferometer circuit 5 is connected to a through port 18, which is an output terminal of the light input side circuit 1, as a first light output side circuit 2. A cross port 19, which is the other output terminal of the light input side circuit 1, is connected to a second light output side circuit 3 having at least one of Mach-Zehnder optical interferometer circuits 13c and 13d whose transmittance characteristics are different from those of the Mach-Zehnder optical interferometer circuits 13a and 13b.